



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicants:** Dimitri Kanevsky, et al.

**Examiner:** Leonid Shapiro

**Serial No:** 09/777,404

**Art Unit:** 2818

**Filed:** February 6, 2001

**Docket:** YOR92000664US1 (13952)

**For:** VEHICULAR NAVIGATION SYSTEM    **Dated:** December 6, 2004

**Confirmation No.:** 4539

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Sir:

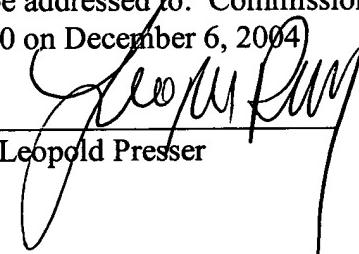
Pursuant to 35 U.S.C. §134 and 37 C.F.R. §41.37, entry of this Appeal Brief in support of the Notice of Appeal filed on October 7, 2004 in the above-identified matter is respectfully requested.

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on December 6, 2004.

Dated: December 6, 2004

  
Leopold Presser

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**I. STATEMENT OF REAL PARTY IN INTEREST**

International Business Machines Corporation; a corporation of New York, having a place of business at Armonk, New York 10504 is the real party in interest in the above-identified patent application.

**II. STATEMENT OF RELATED PROCEEDINGS**

There are no prior or pending appeals or interferences related to this application to Appellant's knowledge.

**III. STATEMENT OF SUPPORTING EVIDENCE**

There are no affidavits, documents or other evidence that have been entered into the record of this application in support of the Appeal.

**IV. STATEMENT OF CLAIM STATUS AND APPEALED CLAIMS**

**A. Claim Status**

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 2 is cancelled.

Claim 3 is cancelled.

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 5 is cancelled.

Claim 6 is cancelled.

Claim 7 is cancelled.

Claim 8 is cancelled.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 11 is cancelled.

Claim 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 17 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 19 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 20 is cancelled.

Claim 21 is cancelled.

Claim 22 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 23 is cancelled.

Claim 24 is cancelled.

Claim 25 is cancelled.

Claim 26 is cancelled.

Claim 27 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 28 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 29 is cancelled.

Claim 30 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388.

Claim 31 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 32 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 33 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 34 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 35 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

Claim 36 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,431 B1, in view of U.S. Patent No. 6,405,132 B1, U.S. Patent No. 6,081,388 and U.S. Patent No. 6,199,014.

**B. Appealed Claims**

Claims 1, 4, 9, 10, 12-19, 22, 27, 28 and 30-36 are appealed.

A clean copy of the claims is attached in Appendix A to this Appeal Brief.

**V. STATEMENTS OF AMENDMENT STATUS**

The Amendment After-Final Rejection filed on August 18, 2004 has not been entered for purposes of appeal pursuant to the Advisory Action mailed on October 14, 2004, stating that the claims raise new issues requiring further search and consideration. Accordingly, the claims being presented for purposes of appeal are those entered in the Amendment filed on March 29, 2004.

**VI. STATEMENT/EXPLANATNION OF INVENTION**

The invention with respect to Claim 1 comprises the subject matter clearly set forth in the specification, as set forth on Page 1, lines 10-22 and on Page 3, lines 11 through Page 4, lines 3 of the specification, and also as shown in Figures 1 and 4 of the drawings.

The invention, with regard to Claim 4 resides in the subject matter of the specification, as set forth on Page 1, lines 10-22; and as identified with regard to Claim 1, further in view of the subject matter of Page 5, line 30 through Page 6, line 8, and as also disclosed in Figure 1 of the drawings.

The invention, with regard to Claim 9, is described in the specification on Page 8, line 15 through Page 9, line 3, and as also disclosed in Figure 1 of the drawings.

The invention, with regard to Claim 10, is described in the specification on Page 8, line 15 through Page 9, line 3; and as also set forth and illustrated in Figure 1 of the drawings.

The invention, with regard to Claim 12, is described in the specification on Page 5, line 30 through Page 6, line 8, and as also illustrated in Figure 1 of the drawings.

The invention, with regard to Claim 13, is described in the specification on Page 8, line 15 through Page 9, line 3, and as also illustrated in Figure 1 of the drawings.

The invention, as represented in Claims 14-16, are all described in the specification on Page 7, line 26 through Page 9, line 26, and as also illustrated in Figures 1 and 3 of the drawings.

The invention, as represented in Claims 17 and 18, are described in the specification on Page 9, line 5 through line 26, and as also illustrated in Figures 1 and 3 of the drawings.

The invention, as represented by Claims 19, 22, 27, 28 and 30-36 are described in the specification analogous to the preceding claims and figure drawings, and primarily pertain to the method of utilizing the navigational system set forth in the preceding claims.

## VII. **STATEMENT/LIST OF EACH GROUND FOR REVIEW**

1. Rejection under 35 U.S.C. §103(a) based on U.S. Patent No. 6,272,431 B1 in view of U.S. Patent No. 6,405,132 B1 and U.S. Patent No. 6,081,388

### A. Claim 1

The inventive subject matter, as set forth in Claim 1, is directed to a navigational system in which a viewing surface is provided and selected

with the windshield or side front window of a vehicle or eyeglasses worn by a driver, and wherein this facilitates the representation of a three-dimensional spatial image perception with the graphical representations pointing towards real objects observed by a driver and also comprising an image of at least one arrow display on the at least one viewing surface pointing towards a selective real object for guiding a driving in a specified direction of travel. The system is an operative communication with a Global Positioning System (GPS), so as to impart information to the driver regarding objects observed on the at least one viewing surface and, as indicated by the driver, by pointing to the objects with pointing means, such as an arrow.

Concerning the prior art, as represented by U.S. Patent No. 6,272,431 B1, the latter primarily displays a map in a vehicle in connection with a guidance system. There is no utilization in this particular publication of a driver being able to provide a viewing or perception of three-dimensional special images comprising graphical representation pointing towards real objects, which are observed by the driver of the vehicle. To the contrary, this U.S. Patent, as cited by the Examiner, only provides for a viewing of a map or a graph that is represented on the windshield and does not pertain to the projection and viewing of three-dimensional objects, which are real in nature.

Even combining this patent with the secondary publications would not lead to the invention, inasmuch as none of the prior art publications are adapted to recognize real objects, such as street sign names or being able to capture images of street names, only being capable of representing images which are provided for in the vehicle.

Pursuant to Claim 1, this is an inventive step beyond normal Global Positioning Systems inasmuch as the prior art is unable to provide the optoelectronic imaging arrangement pursuant to the invention. The secondary publications merely describe either lenses or eyeglass constructions, which are incapable of recognizing real images or only representing a navigational system of a standard nature. In conjunction with the primary reference, which fails to provide a navigational system analogous to the present invention, as claimed in Claim 1, the secondary publications merely teach information in conjunction with a Global Positioning System to impart information to a driver regarding objects observed in at least one viewing surface.

Furthermore, the third U.S. Patent merely teaches the adjustment of a flexible end surface curvature by using electronic data processing devices and actuating structures. None of the publications, whether considered singly or in combination, are capable of providing the three-dimensional

reorganization of real objects by a driver utilizing the unique system of various pointing means, such as an arrow.

With regard to Claims 4, 9, 10, 12 and 13, these also provide further details in that the pointing system are either described as being a single or multiple arrows and are directed to assist drivers having reading disabilities and restrictions by providing capabilities of recognizing real objects and colors of traffic lights, as necessary.

Concerning Claims 13-18, these provide the aspects by further exemplifying the system in Claim 1 by utilizing a computer and wherein to further assist the driver, as set forth in Claims 17 and 18, to have the operating controls mounted on a vehicle steering wheel, so as to be able to control and ascertain the real images which are being projected without removing the driver's eyes from the road or the direction of the vehicle movement.

With regard to Claims 19-36, as presently pending, these are directed to the method of utilizing the navigational system as claimed in preceding Claims 1-13, as applicable, and also pertain to features which can in no manner be ascertained in the prior art, represented by the particular U.S. Patents, concerning which the arguments presented supra are reiterated herein.

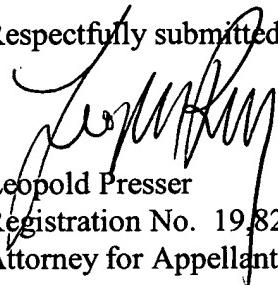
herein.

### **VIII. CONCLUSION**

In view of the remarks set forth in this Appeal Brief, Appellant respectfully submits that the rejection of the claims should not be maintained based on the references applied and as discussed herein. Accordingly, Appellant respectfully requests prompt notification of the reversal of the rejection of Claims 1, 4, 9, 10, 12-19, 22, 27, 28 and 30-36.

Inasmuch as this Appeal Brief is being submitted in accordance with the schedule set out in 37 C.F.R. §41.37, the \$340.00 required in connection with this submission may be charged to Deposit Account No. 50-0510/IBM.

Respectfully submitted,



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LP:jy  
Enclosures: Appendix A



## **APPENDIX A**

### **LISTING OF THE CLAIMS:**

1. A navigational system for an automotive vehicle or aircraft comprising an optical arrangement installed on at least one transparent viewing surface for a driver of the vehicle, said optical arrangement representing images displayed on said at least one viewing surface producing guiding images for imparting directions to the driver; said at least one viewing surface being selectively the windshield or side front window of said vehicle or eyeglasses worn by the driver and comprising lenses of said optical arrangement having at least one arrow provided thereon, said lenses having regulatable degrees of curvature and through which there are displayed objects located exteriorly of said vehicle, said lens curvatures facilitating a 3-dimensional spatial image perception; said images comprise graphical representations pointing towards real objects observed by the driver; said graphical representations comprising an image of at least one arrow display on said at least one viewing surface pointing towards a selected real object for guiding the driver in a specified direction of travel; said system being in operative communications with a global positioning systems (GPS) so as to impart information to the driver regarding objects observed on said at least one viewing surface and as indicated by the driver by pointing to the objects with pointing means.

Claims 2 and 3 (Cancelled).

4. A navigational system as claimed in Claim 1, wherein said at least one arrow is projected on said at least one viewing surface so as to be perceived in a 3-dimentional spatial image.

Claims 5-8 (Cancelled).

9. A navigational system as claimed in Claim 1, wherein said system comprises means to assist drivers of the vehicle having reading disabilities and restrictions to read the names of objects and streets displayed on said at least one viewing surface.

10. A navigational system as claimed in Claim 1, wherein said system comprises means to assist drivers of the vehicle to recognize the colors of traffic lights as displayed on said at least one viewing surface.

Claim 11 (Cancelled).

12. A navigational system as claimed in Claim 1, wherein said pointing means comprise said at least one arrow.

13. A navigational system as claimed in Claim 1, wherein a computer is operatively connected to said system for operating said at least one arrow; means for inputting information to said computer by said driver; said computer including means for analyzing said information displayed on said at least one viewing surface while communicating

with said global positioning system, and imparting directional instructions to said driver in responsive to processing of said items of information.

14. A navigational system as claimed in Claim 13, wherein said information is inputted to said computer through a microphone in the form of verbal commands, and instructions received through a loudspeaker.

15. (Original) A navigational system as claimed in Claim 14, wherein said information is inputted to said computer through hand-written or keyboard-operated functions.

16. (Original) A navigational system as claimed in Claim 13, wherein said computer processes interrogations from said system regarding tasks including the reading of signs, determining colors and identifying objects, processing images related to specified tasks and providing answers to the driver responsive thereto which are displayed on said at least one viewing surface to assist the driver in directional guidance of the vehicle.

17. A navigational system as claimed in Claim 13, wherein control means for said system are installed on a driver steering wheel of said vehicle.

18. A navigational system as claimed in Claim 17, wherein said control means comprise a mouse which is mounted on the steering wheel.

19. A method for the navigation of [a] an automotive vehicle or aircraft comprising installing an optical arrangement on at least one transparent viewing surface for a driver of the vehicle, said optical arrangement representing images displayed on said at least one viewing surface producing guiding images for imparting directions to the driver; said images comprising graphical representations pointing towards real objects observed by the driver; said at least one viewing surface being selectively the windshield or side front window of said vehicle or eyeglasses worn by the driver and comprising lenses of said optical arrangement having at least one arrow provided thereon, said lenses having regulatable degrees of curvature and through which there are displayed objects located exteriorly of said vehicle, said lens curvatures facilitating a 3-dimensional spatial image perception; said graphical representations comprising an image of at least one arrow display on said at least one viewing surface pointing towards a selected real object for guiding the driver in a specified direction of travel; said system being in operative communications with a global positioning system (GPS) so as to impart information to the driver regarding objects observed on said at least one viewing surface and as indicated by the driver by pointing to the objects with pointing means.

Claims 20 and 21 (Cancelled).

22. A navigation method as claimed in Claim 19, wherein said at least one arrow is projected on said at least one viewing surface so as to be perceived in a 3-dimentional spatial image.

Claims 23-26 (Cancelled).

27. A navigation system as claimed in Claim 19, wherein said system assists drivers of the vehicle having reading disabilities and restrictions in reading the names of objects and streets displayed on said at least one viewing surface.

28. A navigation method as claimed in Claim 19, wherein said system comprises assisting drivers of the vehicle in recognizing the colors of traffic lights as displayed on said at least one viewing surface.

Claim 29 (Cancelled).

30. A navigation method as claimed in Claim 19, wherein said pointing means comprise said at least one arrow.

31. A navigational system as claimed in Claim 19, wherein a computer is operatively connected to said system for operating said at least one arrow; inputting information to said computer by said driver; said computer analyzing said information displayed on said at least one viewing surface while communicating with said global positioning system, and imparting directional instructions to said driver in responsive to processing of said items of information.

32. A navigation method as claimed in Claim 31, wherein said information is inputted to said computer through a microphone in the form of verbal commands, and instructions received through a loudspeaker.
33. A navigation method as claimed in Claim 32, wherein said information is inputted to said computer through hand-written or keyboard-operated functions.
34. A navigation method as claimed in Claim 31, wherein said computer processes interrogations from said system regarding tasks including the reading of signs, determining colors and identifying objects, processing images related to specified tasks and providing answers to the driver responsive thereto which are displayed on said at least one viewing surface to assist the driver in directional guidance of the vehicle.
35. A navigation method as claimed in Claim 31, wherein a control for said system is installed on a driver steering wheel of said vehicle.
36. A navigation method as claimed in Claim 35, wherein said control comprises a mouse which is mounted on the steering wheel.

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## TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.  
YOR92000664US1

In Re Application Of: Dimitri Kanevsky, et al.

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/777,404	February 6, 2001	Leonid Shapiro	23389	2818	4539

Invention: VEHICULAR NAVIGATION SYSTEM

COMMISSIONER FOR PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on October 7, 2004

The fee for filing this Appeal Brief is: \$340.00

- A check in the amount of the fee is enclosed.
- The Director has already been authorized to charge fees in this application to a Deposit Account.
- The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 50-0510/IBM
- Payment by credit card. Form PTO-2038 is attached.

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Signature

Dated: December 6, 2004

Leopold Presser  
Registration No. 19,827

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CC: LP:jy

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

December 6, 2004

(Date)

Signature of Person Mailing Correspondence

Leopold Presser

Typed or Printed Name of Person Mailing Correspondence